

1. An apparatus, expandable axially along an anchor between a surface and a retainer fastened to the anchor, the take-up unit comprising:

a base, threaded for engaging a slide;

the slide, threadedly engaging the base to provide relative linear translation during

5 multiple revolutions of relative rotation with respect to the base;

the base and slide configured to be axially independent from the anchor; and

a bias element for urging the relative rotation.

10 2. The apparatus of claim 1, wherein the apparatus is radially restrained by the anchor.

3. The apparatus of claim 1, wherein the apparatus is axially restrained exclusively by the retainer and the surface.

15 4. The apparatus of claim 1, further comprising a cover for shielding the threaded portions.

5. The apparatus of claim 4, wherein the cover further comprises a portion of one of the base and slide for protecting threads thereon.

20 6. The apparatus of claim 4, wherein the cover is configured to protect the bias element.

7. The apparatus of claim 4, wherein the cover is integral with one of the slide and the base.

8. The apparatus of claim 1, wherein the installed apparatus substantially maintains a full expanded height subsequent to achieving such a height.

9. The apparatus of claim 1, further comprising a lock for resisting relative rotation in a direction corresponding to relative contraction of the apparatus.

10. The apparatus of claim 9, wherein the lock is configured to selectively resist rotation in a backward direction.

11. The apparatus of claim 10, wherein the lock comprises a friction surface between the slide and the base.

12. The apparatus of claim 10, wherein the lock further comprises a structural interference between the slide and the base.

13. The apparatus of claim 12, wherein the lock further comprises a first member extending from one of the base and slide, and a second member extending from the other of the base and slide for mutual interference therebetween.

14. The apparatus of claim 1, further comprising a safety mechanism for resisting disassembly of the apparatus.

15. The apparatus of claim 14, wherein disassembly further comprises separation of the base and slide.

16. The apparatus of claim 14, wherein the safety mechanism is configured to be engaged during assembly by a manufacturer subsequent to a preloading of the bias element.

17. The apparatus of claim 16, further comprising a trigger effective to maintain a preloaded condition corresponding to a first height of the apparatus, and operable to release the base and slide for relative rotation.

18. The apparatus of claim 1, having an operational range of height, and further configured to be stackable in multiples, each apparatus in a stack remaining operable over a full value of the operational range.

19. An apparatus provided with an aperture for slidingly receiving an anchor of a hold-down system, the apparatus interposed to maintain in compression between a surface and a retainer secured to the anchor, for automatically increasing in height to take up slack between the surface and the retainer, the apparatus comprising:

5 a base;

a slide;

the base and slide being cooperatively structured for relative sliding motion therebetween to effect a change in height of the apparatus;

10 the base and slide further comprising mutually engageable threaded portions to retain contact surfaces thereof in close sliding relation;

a bias element, said bias element interposed between the base and slide and preloaded to urge the base and slide toward relative positions corresponding to an increased height of the apparatus; and

15 a trigger configured to fix the base with respect to the slide for installation, and operable to release the base and slide for automatically increasing the height of the apparatus.

20. A take-up unit provided with a hole therethrough configured to receive an anchor bolt of a hold down system, said unit further configured to automatically increase in height, the take-up unit comprising:

a base member;

5 a sliding member, said base and sliding members being cooperatively structured so that relative sliding motion therebetween changes the height of the take-up unit;

a bias element interposed between the base and sliding members and loaded to urge said members toward a position of increased unit height; and

10 a trigger mechanism for maintaining the take-up unit in an installation configuration corresponding to a first height, and operable to release the take-up unit for automatically increasing the height thereof to a second height at a time remote from an installation time; and the sliding member further comprising:

a right-hand threaded hole for engagement with the anchor bolt,

a surface against which to receive a jam nut in engagement with the anchor bolt,

15 and

a left-handed threaded engagement with the base member.